



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/566,363 | 08/29/2006 | Chihiro Sawada | 126817 | 3484 |
| 25944 7590 08/05/2010 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850 | | | | |
| EXAMINER | | | | |
| KNABLE, GEOFFREY L | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1791 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 08/05/2010 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com
jarnstrong@oliff.com

Office Action Summary

Application No.

10/566,363

Applicant(s)

SAWADA ET AL.

Examiner

Geoffrey L. Knable

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 5 is/are allowed.
6) ☒ Claim(s) 1, 6 and 7 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SI/22)
Paper No(s)/Mail Date 3/10/2010
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 6 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In new claim 6, reference is made to an "angle calculation device". The original disclosure does not however describe such a device and therefore this is subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is new matter.

3. Claims 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, line 8, no antecedent has been established for "the required angle", it further not being clear what this angle is or how it is measured.

In claim 6, both lines 12 and 16 also refer to "the required angle" (presumably being the "required angle" from line 8). However, each of these lines is referring to an entirely different angle whereas as presently claimed, this would seem to be the same angle (both equal to "the required angle"). This renders the scope of this claim entirely indefinite and confusing.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enders (US 4,343,671) taken in view of at least one of [Yamamori et al. (US 5,273,600) and Ishii (US 4,596,617)].

Claim 1 has been amended to essentially include the limitations of previous claim 2 and therefore the prior art is applied to claim 1 as amended in the same manner as previously applied against claim 2. Applicant stresses the new requirement that the forming drum angle control device "controls" the drum to rotate by an angle equal to the required angle in an opposite direction and that this is not a mere a capability. This argument has been carefully considered but is unpersuasive. The secondary references clearly disclose rotating the drum in a reverse direction over a defined angle that is controlled to press the joint. In other words, these references teach or render obvious forming drum rotation control that "controls" the forming drum rotation in the reverse direction to a certain "required angle." The claim does not at present structurally require anything more (i.e. this angle can be defined as "equal" to some other angle, this representing the intended manner of operation of the device.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enders (US 4,343,671) taken in view of at least one of [JP 10-086240 to Masuda (newly applied) and JP 06-320640 to Hosono (newly applied)].

Enders is applied for substantially the same reasons as set forth in the last office action with respect to claim 1. In particular, Enders discloses a tire building machine including a building drum with radially expandable bead locks (which would cause radial expansion of an axial portion of the carcass against the bead cores) and a bead core

transfer device (bead setter) adapted to apply beads to a drum where the bead setters are configured such that they are adjustable or movable such that they are capable of inclining an axis of the bead clamps relative to the axis of the drum – note especially col. 7, lines 41-51 and fig. 1 which suggest an omnidirectional adjustment capability that adjusts the axis of the clamps. The screws “194” in particular (e.g. fig. 1) would provide this ability to adjust the inclination as claimed, this adjustment mechanism therefore satisfying the claimed requirement for an “inclination control mechanism”. It is stressed that this “inclination control mechanism,” read in light of the original disclosure, is only in reference to the mechanical components of the setter that actually allows adjustment of the bead axis and is not inclusive of for example a control computer, etc. The reference mechanism can control the inclination by a required angle calculated in any manner.

As to the band drum rotation angle control means, as would have been implicit or certainly obvious in the Enders machine, the drum would be rotatable by a controlled motor that could be stopped and started as desired (for component application, stitching, etc.) and thus is or certainly should be capable of rotation by a desired angle. The claim requires nothing more. The typical start/stop control of drum rotation for component application/stitching that is implicit or certainly obvious from the Enders disclosure would therefore satisfy the claimed requirement for a band drum rotation angle control means.

As to an angle calculation device, both JP '240 and JP '640 (both of record) teach that it is desirable in terms of reducing non-uniformity to apply the various components, including the inner liner (applied as part of the carcass band building) with

joints at specified precalculated circumferential positions based on uniformity waveforms. In view of these teachings, providing a device to calculate a required circumferential drum angle for application of the tire components such as the inner liner would have been obvious with an expectation of being able to reduce non-uniformity in the final tire - only the expected and predictable results would have been achieved.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Enders (US 4,343,671) taken in view of at least one of [JP 10-086240 to Masuda and JP 06-320640 to Hosono] as applied to claim 1 above, and further in view of at least one of [Yamamori et al. (US 5,273,600) and Ishii (US 4,596,617)].

As to including a forming drum to receive a transferred carcass band, Enders specifically suggests applicability of the claimed bead setting to a first stage machine in which case the carcass band would be transferred to a second stage machine for shaping/stitching (e.g. col. 10, line 60 - col. 11, line 6). A shaping or forming drum as claimed is therefore contemplated. As to forming drum rotation angle control means that controls rotation in a reverse direction, in view of Yamamori et al. (e.g. col. 8, lines 63+) and Ishii (e.g. col. 4, lines 6-11), it is known to be desirable to provide a tire drum rotation control means to rotate in either direction to enable appropriate pressing of the components (or the joint thereof) to the drum. To provide such two direction rotation control would therefore have been obvious. As to the arguments with respect to that this device "controls" the forming drum, as noted above, the secondary references clearly disclose rotating the drum in a reverse direction over a defined angle that is controlled to press the joint. In other words, these references teach or render obvious forming

drum rotation control that "controls" the forming drum rotation in the reverse direction to a certain "required angle." The claim does not at present structurally require anything more (i.e. this angle can be defined as "equal" to some other angle, this representing the intended manner of operation of the device).

7. Claim 5 is allowed in view of applicant's response.
8. Applicant's arguments filed 5/19/2010 have been fully considered but they are not persuasive at least as regards the remaining rejections.

The amendments/arguments with respect to claim 5 are however persuasive and the rejections of this claim have been withdrawn. The arguments with respect to claim 1 as amended have been addressed within the statement of rejection above. New claims 6 and 7 have been addressed with the new grounds of rejection necessitated by the presentation of these new claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/
Primary Examiner, Art Unit 1791

G. Knable
August 2, 2010